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Interactive comment on "Modeling stomatal conductance in the Earth system: linking leaf water-use efficiency and water transport along the soil-plant-atmosphere continuum" *by* G. B. Bonan et al.

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Dear Authors,

I would like to note merely that, with respect to the radiative transfer scheme applied,

1) the formula of Goudriaan's G-function approximation $G = \phi_1 + \phi_2 \mu$ is not correct. It holds $G = \phi_1 + \phi_2 |\mu|$.

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2) the usage of Goudriaan's G-function approximation is not the best one in my opinion. There are better approximations of Dickinson and deRidder. Moreover, there are exact formulas of G for various standard leaf normal distributions functions (spherical, uniform, planophile etc.). Why aren't they applied?

Since the G-function is (not only) part of the solar exponential term of the radiative transfer equation, small deviations (e.g. due to inaccuracies) in G can have a big impact on the transported radiation, photosynthesis calculations and so on. How do both facts influence the results of your work?

Best regards,
Sebastian Otto

Interactive comment on Geosci. Model Dev. Discuss., 7, 3085, 2014.